The following text was delivered as a talk at a meeting of a Seattle arts society organized by Bonnie Bird in 1937. It was printed in the brochure accompanying George Avakian's recording of my twenty-five-year retrospective concert at Town Hall, New York, in 1958.

THE FUTURE OF MUSIC: CREDO

I BELIEVE THAT THE USE OF NOISE

Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The sound of a truck at fifty miles per hour. Static between the stations. Rain. We want to capture and control these sounds, to use them not as sound effects but as musical instruments. Every film studio has a library of "sound effects" recorded on film. With a film phonograph it is now possible to control the amplitude and frequency of any one of these sounds and to give to it rhythms within or beyond the reach of the imagination. Given four film phonographs, we can compose and perform a quartet for explosive motor, wind, heartbeat, and landslide.

TO MAKE MUSIC

If this word "music" is sacred and reserved for eighteenth- and nineteenth-century instruments, we can substitute a more meaningful term: organization of sound.

WILL CONTINUE AND INCREASE UNTIL WE REACH A MUSIC PRODUCED THROUGH THE AID OF ELECTRICAL INSTRUMENTS

Most inventors of electrical musical instruments have attempted to imitate eighteenth- and nineteenth-century instruments, just as early automobile designers copied the carriage. The Novachord and the

Solovox are examples of this desire to imitate the past rather than construct the future. When Theremin provided an instrument with genuinely new possibilities, Thereministes did their utmost to make the instrument sound like some old instrument, giving it a sickeningly sweet vibrato, and performing upon it, with difficulty, masterpieces from the past. Although the instrument is capable of a wide variety of sound qualities, obtained by the turning of a dial, Thereministes act as censors, giving the public those sounds they think the public will like. We are shielded from new sound experiences.

The special function of electrical instruments will be to provide complete control of the overtone structure of tones (as opposed to noises) and to make these tones available in any frequency, amplitude, and duration.

WHICH WILL MAKE AVAILABLE FOR MUSICAL PURPOSES ANY AND ALL SOUNDS THAT CAN BE HEARD. PHOTOELECTRIC, FILM, AND MECHANICAL MEDIUMS FOR THE SYNTHETIC PRODUCTION OF MUSIC

It is now possible for composers to make music directly, without the assistance of intermediary performers. Any design repeated often enough on a sound track is audible. Two hundred and eighty circles per second on a sound track will produce one sound, whereas a portrait of Beethoven repeated fifty times per second on a sound track will have not only a different pitch but a different sound quality.

WILL BE EXPLORED.
WHEREAS, IN THE PAST, THE POINT OF DISAGREEMENT HAS BEEN BETWEEN DISSONANCE AND CONSONANCE, IT WILL BE, IN THE IMMEDIATE FUTURE, BETWEEN NOISE AND SO-CALLED MUSICAL SOUNDS.

THE PRESENT METHODS
OF WRITING MUSIC, PRINCIPALLY THOSE WHICH EMPLOY HARMONY AND ITS REFERENCE TO PARTICULAR STEPS IN THE FIELD OF SOUND, WILL BE INADEQUATE FOR THE COMPOSER, WHO WILL BE FACED WITH THE ENTIRE FIELD OF SOUND.

The composer (organizer of sound) will be faced not only with the entire field of sound but also with the entire field of time. The "frame" or fraction of a second, following established film technique, will probably be the basic unit in the measurement of time. No rhythm will be beyond the composer's reach.

NEW METHODS WILL BE DISCOVERED, BEARING A DEFINITE RELATION TO SCHOENBERG'S TWELVE-TONE SYSTEM

Schoenberg's method assigns to each material, in a group of equal materials, its function with respect to the group. (Harmony assigned to each material, in a group of unequal materials, its function with respect to the fundamental or most important material in the group.) Schoenberg's method is analogous to a society in which the emphasis is on the group and the integration of the individual in the group.

AND PRESENT METHODS OF WRITING PERCUSSION MUSIC

Percussion music is a contemporary transition from keyboard-influenced music to the all-sound music of the future. Any sound is acceptable to the composer of percussion music; he explores the academically forbidden "non-musical" field of sound insofar as is manually possible.

Methods of writing percussion music have as their goal the rhythmic structure of a composition. As soon as these methods are crystallized into one or several widely accepted methods, the means will exist for group improvisations of unwritten but culturally important music. This has already taken place in Oriental cultures and in hot jazz.

AND ANY OTHER METHODS WHICH ARE FREE FROM THE CONCEPT OF A FUNDAMENTAL TONE.

THE PRINCIPLE OF FORM WILL BE OUR ONLY CONSTANT CONNECTION WITH THE PAST. ALTHOUGH THE GREAT FORM OF THE FUTURE WILL NOT BE AS IT WAS IN THE PAST, AT

ONE TIME THE FUGUE AND AT ANOTHER THE SONATA, IT WILL BE RELATED TO THESE AS THEY ARE TO EACH OTHER:

Before this happens, centers of experimental music must be established. In these centers, the new materials, oscillators, turntables, generators, means for amplifying small sounds, film phonographs, etc., available for use. Composers at work using twentieth-century means for making music. Performances of results. Organization of sound for extra-musical purposes (theatre, dance, radio, film).

THROUGH

THE PRINCIPLE OF ORGANIZATION OR MAN'S COMMON ABILITY TO THINK.

. . . . . .

It was a Wednesday. I was in the sixth grade. I overheard Dad saying to Mother, "Get ready: we're going to New Zealand Saturday." I got ready. I read everything I could find in the school library about New Zealand. Saturday came. Nothing happened. The project was not even mentioned, that day or any succeeding day.

M. C. Richards went to see the Bolshoi Ballet. She was delighted with the dancing. She said, "It's not what they do; it's the ardor with which they do it." I said, "Yes: composition, performance, and audition or observation are really different things. They have next to nothing to do with one another." Once, I told her, I was at a house on Riverside Drive where people were invited to be present at a Zen service conducted by a Japanese Roshi. He did the ritual, rose petals and all. Afterwards tea was served with rice cookies. And then the hostess and her husband, employing an out-of-tune piano and a cracked voice, gave a wretched performance of an excerpt from a third-rate Italian opera. I was embarrassed and glanced towards the Roshi to see how he was taking it. The expression on his face was absolutely beatific.

A young man in Japan arranged his circumstances so that he was able to travel to a distant island to study Zen with a certain Master for a three-year period. At the end of the three years, feeling no sense of accomplishment, he presented himself to the Master and announced his departure. The Master said, "You've been here three years. Why don't you stay three months more?" The student agreed, but at the end of the three months he still felt that he had made no advance. When he told the Master again that he was leaving, the Master said, "Look now, you've been here three years and three months. Stay three weeks longer." The student did, but with no success. When he told the Master that absolutely nothing had happened, the Master said, "You've been here three years, three months, and three weeks. Stay three more days, and if, at the end of that time, you have not attained enlightenment, commit suicide." Towards the end of the second day, the student was enlightened.

The following statement was given as an address to the convention of the Music Teachers National Association in Chicago in the winter of 1957. It was printed in the brochure accompanying George Avakian's recording of my twenty-five-year retrospective concert at Town Hall, New York, in 1958.

EXPERIMENTAL MUSIC

Formerly, whenever anyone said the music I presented was experimental, I objected. It seemed to me that composers knew what they were doing, and that the experiments that had been made had taken place prior to the finished works, just as sketches are made before paintings and rehearsals precede performances. But, giving the matter further thought, I realized that there is ordinarily an essential difference between making a piece of music and hearing one. A composer knows his work as a woodsman knows a path he has traced and retraced, while a listener is confronted by the same work as one is in the woods by a plant he has never seen before.

Now, on the other hand, times have changed; music has changed; and I no longer object to the word "experimental." I use it in fact to describe all the music that especially interests me and to which I am devoted, whether someone else wrote it or I myself did. What has happened is that I have become a listener and the music has become something to hear. Many people, of course, have given up saying "experimental" about this new music. Instead, they either move to a halfway point and say "controversial" or depart to a greater distance and question whether this "music" is music at all.

For in this new music nothing takes place but sounds: those that are notated and those that are not. Those that are not notated appear in the

written music as silences, opening the doors of the music to the sounds that happen to be in the environment. This openness exists in the fields of modern sculpture and architecture. The glass houses of Mies van der Rohe reflect their environment, presenting to the eye images of clouds, trees, or grass, according to the situation. And while looking at the constructions in wire of the sculptor Richard Lippold, it is inevitable that one will see other things, and people too, if they happen to be there at the same time, through the network of wires. There is no such thing as an empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make a silence, we cannot. For certain engineering purposes, it is desirable to have as silent a situation as possible. Such a room is called an anechoic chamber, its six walls made of special material, a room without echoes. I entered one at Harvard University several years ago and heard two sounds, one high and one low. When I described them to the engineer in charge, he informed me that the high one was my nervous system in operation, the low one my blood in circulation. Until I die there will be sounds. And they will continue following my death. One need not fear about the future of music.

But this fearlessness only follows if, at the parting of the ways, where it is realized that sounds occur whether intended or not, one turns in the direction of those he does not intend. This turning is psychological and seems at first to be a giving up of everything that belongs to humanity—for a musician, the giving up of music. This psychological turning leads to the world of nature, where, gradually or suddenly, one sees that humanity and nature, not separate, are in this world together; that nothing was lost when everything was given away. In fact, everything is gained. In musical terms, any sounds may occur in any combination and in any continuity.

And it is a striking coincidence that just now the technical means to produce such a free-ranging music are available. When the Allies entered Germany towards the end of World War II, it was discovered that improvements had been made in recording sounds magnetically such that tape had become suitable for the high-fidelity recording of music. First in France with the work of Pierre Schaeffer, later here, in Germany, in Italy, in Japan, and perhaps, without my knowing it, in other places, magnetic tape was

used not simply to record performances of music but to make a new music that was possible only because of it. Given a minimum of two tape recorders and a disk recorder, the following processes are possible: 1) a single recording of any sound may be made; 2) a rerecording may be made, in the course of which, by means of filters and circuits, any or all of the physical characteristics of a given recorded sound may be altered; 3) electronic mixing (combining on a third machine sounds issuing from two others) permits the presentation of any number of sounds in combination; 4) ordinary splicing permits the juxtaposition of any sounds, and when it includes unconventional cuts, it, like rerecording, brings about alterations of any or all of the original physical characteristics. The situation made available by these means is essentially a total sound-space, the limits of which are ear-determined only, the position of a particular sound in this space being the result of five determinants: frequency or pitch, amplitude or loudness, overtone structure or timbre, duration, and morphology (how the sound begins, goes on, and dies away). By the alteration of any one of these determinants, the position of the sound in sound-space changes. Any sound at any point in this total sound-space can move to become a sound at any other point. But advantage can be taken of these possibilities only if one is willing to change one's musical habits radically. That is, one may take advantage of the appearance of images without visible transition in distant places, which is a way of saying "television," if one is willing to stay at home instead of going to a theatre. Or one may fly if one is willing to give up walking.

Musical habits include scales, modes, theories of counterpoint and harmony, and the study of the timbres, singly and in combination of a limited number of sound-producing mechanisms. In mathematical terms these all concern discrete steps. They resemble walking—in the case of pitches, on steppingstones twelve in number. This cautious stepping is not characteristic of the possibilities of magnetic tape, which is revealing to us that musical action or existence can occur at any point or along any line or curve or what have you in total sound-space; that we are, in fact, technically equipped to transform our contemporary awareness of nature's manner of operation into art.

Again there is a parting of the ways. One has a choice. If he does not wish to give up his attempts to control sound, he may complicate his musical technique towards an approximation of the new possibilities and awareness. (I use the word "approximation" because a measuring mind can never finally measure nature.) Or, as before, one may give up the desire to control sound, clear his mind of music, and set about discovering means to let sounds be themselves rather than vehicles for man-made theories or expressions of human sentiments.

This project will seem fearsome to many, but on examination it gives no cause for alarm. Hearing sounds which are just sounds immediately sets the theorizing mind to theorizing, and the emotions of human beings are continually aroused by encounters with nature. Does not a mountain unintentionally evoke in us a sense of wonder? otters along a stream a sense of mirth? night in the woods a sense of fear? Do not rain falling and mists rising up suggest the love binding heaven and earth? Is not decaying flesh loathsome? Does not the death of someone we love bring sorrow? And is there a greater hero than the least plant that grows? What is more angry than the flash of lightning and the sound of thunder? These responses to nature are mine and will not necessarily correspond with another's. Emotion takes place in the person who has it. And sounds, when allowed to be themselves, do not require that those who hear them do so unfeelingly. The opposite is what is meant by response ability.

New music: new listening. Not an attempt to understand something that is being said, for, if something were being said, the sounds would be given the shapes of words. Just an attention to the activity of sounds.

Those involved with the composition of experimental music find ways and means to remove themselves from the activities of the sounds they make. Some employ chance operations, derived from sources as ancient as the Chinese *Book of Changes,* or as modern as the tables of random numbers used also by physicists in research. Or, analogous to the Rorschach tests of psychology, the interpretation of imperfections in the paper upon which one is writing may provide a music free from one's memory and imagination. Geometrical means employing spatial superimpositions at

variance with the ultimate performance in time may be used. The total field of possibilities may be roughly divided and the actual sounds within these divisions may be indicated as to number but left to the performer or to the splicer to choose. In this latter case, the composer resembles the maker of a camera who allows someone else to take the picture.

Whether one uses tape or writes for conventional instruments, the present musical situation has changed from what it was before tape came into being. This also need not arouse alarm, for the coming into being of something new does not by that fact deprive what was of its proper place. Each thing has its own place, never takes the place of something else; and the more things there are, as is said, the merrier.

But several effects of tape on experimental music may be mentioned. Since so many inches of tape equal so many seconds of time, it has become more and more usual that notation is in space rather than in symbols of quarter, half, and sixteenth notes and so on. Thus where on a page a note appears will correspond to when in a time it is to occur. A stop watch is used to facilitate a performance; and a rhythm results which is a far cry from horse's hoofs and other regular beats.

Also it has been impossible with the playing of several separate tapes at once to achieve perfect synchronization. This fact has led some towards the manufacture of multiple-tracked tapes and machines with a corresponding number of heads; while others—those who have accepted the sounds they do not intend—now realize that the score, the requiring that many parts be played in a particular togetherness, is not an accurate representation of how things are. These now compose parts but not scores, and the parts may be combined in any unthought ways. This means that each performance of such a piece of music is unique, as interesting to its composer as to others listening. It is easy to see again the parallel with nature, for even with leaves of the same tree, no two are exactly alike. The parallel in art is the sculpture with moving parts, the mobile.

It goes without saying that dissonances and noises are welcome in this new music. But so is the dominant seventh chord if it happens to put in an appearance.

Rehearsals have shown that this new music, whether for tape or for instruments, is more clearly heard when the several loud-speakers or performers are separated in space rather than grouped closely together. For this music is not concerned with harmoniousness as generally understood, where the quality of harmony results from a blending of several elements. Here we are concerned with the coexistence of dissimilars, and the central points where fusion occurs are many: the ears of the listeners wherever they are. This disharmony, to paraphrase Bergson's statement about disorder, is simply a harmony to which many are unaccustomed.

Where do we go from here? Towards theatre. That art more than music resembles nature. We have eyes as well as ears, and it is our business while we are alive to use them.

And what is the purpose of writing music? One is, of course, not dealing with purposes but dealing with sounds. Or the answer must take the form of paradox: a purposeful purposelessness or a purposeless play. This play, however, is an affirmation of life—not an attempt to bring order out of chaos nor to suggest improvements in creation, but simply a way of waking up to the very life we're living, which is so excellent once one gets one's mind and one's desires out of its way and lets it act of its own accord.

. . . . . .

When Xenia and I came to New York from Chicago, we arrived in the bus station with about twenty-five cents. We were expecting to stay for a while with Peggy Guggenheim and Max Ernst. Max Ernst had met us in Chicago and had said, "Whenever you come to New York, come and stay with us. We have a big house on the East River." I went to the phone booth in the bus station, put in a nickel, and dialed. Max Ernst answered. He didn't recognize my voice. Finally he said, "Are you thirsty?" I said, "Yes." He said, "Well, come over tomorrow for cocktails." I went back to Xenia and told her what had happened. She said, "Call him back. We have everything to gain and nothing to lose." I did. He said, "Oh! It's you. We've been waiting for you for weeks. Your room's ready. Come right over."

Dad is an inventor. In 1912 his submarine had the world's record for staying under water. Running as it did by means of a gasoline engine, it left bubbles on the surface, so it was not employed during World War I. Dad says he does his best work when he is sound asleep. I was explaining at the New School that the way to get ideas is to do something boring. For instance, composing in such a way that the process of composing is boring induces ideas. They fly into one's head like birds. Is that what Dad meant?

This article, there titled Experimental Music, *first appeared in* The Score and I. M. A. Magazine, *London, issue of June 1955. The inclusion of a dialogue between an uncompromising teacher and an unenlightened student, and the addition of the word "doctrine" to the original title, are references to the* Huang-Po Doctrine of Universal Mind.

EXPERIMENTAL MUSIC: DOCTRINE

Objections are sometimes made by composers to the use of the term *experimental* as descriptive of their works, for it is claimed that any experiments that are made precede the steps that are finally taken with determination, and that this determination is knowing, having, in fact, a particular, if unconventional, ordering of the elements used in view. These objections are clearly justifiable, but only where, as among contemporary evidences in serial music, it remains a question of making a thing upon the boundaries, structure, and expression of which attention is focused. Where, on the other hand, attention moves towards the observation and audition of many things at once, including those that are environmental—becomes, that is, inclusive rather than exclusive—no question of making, in the sense of forming understandable structures, can arise (one is tourist), and here the word "experimental" is apt, providing it is understood not as descriptive of an act to be later judged in terms of success and failure, but simply as of an act the outcome of which is unknown. What has been determined?

For, when, after convincing oneself ignorantly that sound has, as its clearly defined opposite, silence, that since duration is the only characteristic of sound that is measurable in terms of silence, therefore any valid structure involving sounds and silences should be based, not as occidentally traditional, on frequency, but rightly on duration, one enters an anechoic chamber, as silent as technologically possible in 1951, to discover that one hears two sounds of one's own unintentional making (nerve's systematic operation, blood's circulation), the situation one is clearly in is not objec-

tive (sound-silence), but rather subjective (sounds only), those intended and those others (so-called silence) not intended. If, at this point, one says, "Yes! I do not discriminate between intention and non-intention," the splits, subject-object, art-life, etc., disappear, an identification has been made with the material, and actions are then those relevant to its nature, i.e.:

A sound does not view itself as thought, as ought, as needing another sound for its elucidation, as etc.; it has no time for any consideration—it is occupied with the performance of its characteristics: before it has died away it must have made perfectly exact its frequency, its loudness, its length, its overtone structure, the precise morphology of these and of itself.

Urgent, unique, uninformed about history and theory, beyond the imagination, central to a sphere without surface, its becoming is unimpeded, energetically broadcast. There is no escape from its action. It does not exist as one of a series of discrete steps, but as transmission in all directions from the field's center. It is inextricably synchronous with all other, sounds, non-sounds, which latter, received by other sets than the ear, oper ate in the same manner.

A sound accomplishes nothing; without it life would not last out the instant.

Relevant action is theatrical (music [imaginary separation of hearing from the other senses] does not exist), inclusive and intentionally purposeless. Theatre is continually becoming that it is becoming; each human being is at the best point for reception. Relevant response (getting up in the morning and discovering oneself musician) (action, art) can be made with any number (including none [none and number, like silence and music, are unreal]) of sounds. The automatic minimum (see above) is two.

Are you deaf (by nature, choice, desire) or can you hear (externals, tympani, labyrinths in whack)?

Beyond them (ears) is the power of discrimination which, among other confused actions, weakly pulls apart (abstraction), ineffectually establishes as not to suffer alteration (the "work"), and unskillfully protects from interruption (museum, concert hall) what springs, elastic, spontaneous, back together again with a beyond that power which is fluent (it moves in or out), pregnant (it can appear when- where- as what-ever [rose, nail, constellation, 485.73482 *cycles per second, piece of string]), related (it is you yourself in the form you have that instant*

taken), obscure (you will never be able to give a satisfactory report even to yourself of just what happened).

In view, then, of a totality of possibilities, no knowing action is commensurate, since the character of the knowledge acted upon prohibits all but some eventualities. From a realist position, such action, though cautious, hopeful, and generally entered into, is unsuitable. An *experimental* action, generated by a mind as empty as it was before it became one, thus in accord with the possibility of no matter what, is, on the other hand, practical. It does not move in terms of approximations and errors, as "informed" action by its nature must, for no mental images of what would happen were set up beforehand; it sees things directly as they are: impermanently involved in an infinite play of interpenetrations. Experimental music—

QUESTION: —in the U.S.A., if you please. Be more specific. What do you have to say about rhythm? Let us agree it is no longer a question of pattern, repetition, and variation.

ANSWER: There is no need for such agreement. Patterns, repetitions, and variations will arise and disappear. However, rhythm is durations of any length coexisting in any states of succession and synchronicity. The latter is liveliest, most unpredictably changing, when the parts are not fixed by a score but left independent of one another, no two performances yielding the same resultant durations. The former, succession, liveliest when (as in Morton Feldman's *Intersections*) it is not fixed but presented in situation-form, entrances being at any point within a given period of time.—Notation of durations is in space, read as corresponding to time, needing no reading in the case of magnetic tape.

QUESTION: What about several players at once, an orchestra?

ANSWER: You insist upon their being together? Then use, as Earle Brown suggests, a moving picture of the score, visible to all, a static vertical line as coordinator, past which the notations move. If you have no particular togetherness in mind, there are chronometers. Use them.

QUESTION: I have noticed that you write durations that are beyond the possibility of performance.

ANSWER: Composing's one thing, performing's another, listening's a third. What can they have to do with one another?

* * *

QUESTION: And about pitches?

ANSWER: It is true. Music is continually going up and down, but no longer only on those stepping stones, five, seven, twelve in number, or the quarter tones. Pitches are not a matter of likes and dislikes (I have told you about the diagram Schillinger had stretched across his wall near the ceiling: all the scales, Oriental and Occidental, that had been in general use, each in its own color plotted against, no one of them identical with, a black one, the latter the scale as it would have been had it been physically based on the overtone series) except for musicians in ruts; in the face of habits, what to do? Magnetic tape opens the door providing one doesn't immediately shut it by inventing a *phonogène,* or otherwise use it to recall or extend known musical possibilities. It introduces the unknown with such sharp clarity that anyone has the opportunity of having his habits blown away like dust.—For this purpose the prepared piano is also useful, especially in its recent forms where, by alterations during a performance, an otherwise static gamut situation becomes changing. Stringed instruments (not string-players) are very instructive, voices too; and sitting still anywhere (the stereophonic, multiple-loud-speaker manner of operation in the everyday production of sounds and noises) listening...

QUESTION: I understand Feldman divides all pitches into high, middle, and low, and simply indicates how many in a given range are to be played, leaving the choice up to the performer.

ANSWER: Correct. That is to say, he used sometimes to do so; I haven't seen him lately. It is also essential to remember his notation of super- and subsonic vibrations (*Marginal Intersection No. 1*).

QUESTION: That is, there are neither divisions of the "canvas" nor "frame" to be observed?

ANSWER: On the contrary, you must give the closest attention to everything.

* * *

QUESTION: And timbre?

ANSWER: No wondering what's next. Going lively on "through many a perilous situation." Did you ever listen to a symphony orchestra?

* * *

QUESTION: Dynamics?

ANSWER: These result from what actively happens (physically, me-

chanically, electronically) in producing a sound. You won't find it in the books. Notate that. As far as too loud goes: "follow the general outlines of the Christian life."

QUESTION: I have asked you about the various characteristics of a sound; how, now, can you make a continuity, as I take it your intention is, without intention? Do not memory, psychology——

ANSWER: "——never again."

QUESTION: How?

ANSWER: Christian Wolff introduced space actions in his compositional process at variance with the subsequently performed time actions. Earle Brown devised a composing procedure in which events, following tables of random numbers, are written out of sequence, possibly anywhere in a total time now and possibly anywhere else in the same total time next. I myself use chance operations, some derived from the *I-Ching*, others from the observation of imperfections in the paper upon which I happen to be writing. Your answer: by not giving it a thought.

QUESTION: Is this athematic?

ANSWER: Who said anything about themes? It is not a question of having something to say.

QUESTION: Then what is the purpose of this "experimental" music?

ANSWER: No purposes. Sounds.

QUESTION: Why bother, since, as you have pointed out, sounds are continually happening whether you produce them or not?

ANSWER: What did you say? I'm still——

QUESTION: I mean—— But is this *music*?

ANSWER: Ah! you like sounds after all when they are made up of vowels and consonants. You are slow-witted, for you have never brought your mind to the location of urgency. Do you need me or someone else to hold you up? Why don't you realize as I do that nothing is accomplished by writing, playing, or listening to music? Otherwise, deaf as a doornail, you will never be able to hear anything, even what's well within earshot.

QUESTION: But, seriously, if this is what music is, I could write it as well as you.

ANSWER: Have I said anything that would lead you to think I thought you were stupid?

The following three lectures were given at Darmstadt (Germany) in September 1958. The third one, with certain revisions, is a lecture given earlier that year at Rutgers University in New Jersey, an excerpt from which was published in the Village Voice, *New York City, in April 1958.*

COMPOSITION AS PROCESS

I. Changes

Having been asked by Dr. Wolfgang Steinecke, Director of the Internationale Ferienkurse für Neue Musik at Darmstadt, to discuss in particular my Music of Changes, *I decided to make a lecture within the time length of the* Music of Changes *(each line of the text whether speech or silence requiring one second for its performance), so that whenever I would stop speaking, the corresponding part of the* Music of Changes *itself would be played. The music is not superimposed on the speech but is heard only in the interruptions of the speech—which, like the lengths of the paragraphs themselves, were the result of chance operations.*

This is a lecture on changes that have taken place in my composition means, with particular reference to what, a decade ago, I termed "structure" and "method." By "structure" was meant the division of a whole into parts; by "method," the note-to-note procedure. Both structure and method (and also "material"— the sounds and silences of a composition)

were, it seemed to me then, the proper concern of the mind (as opposed to the heart) (one's ideas of order as opposed to one's spontaneous actions); whereas the two last of these, namely method and material, together with form (the morphology of a continuity) were equally the proper concern of the heart. Composition, then, I viewed, ten years ago, as an activity integrating the opposites, the rational and the irrational, bringing about, ideally, a freely moving continuity within a strict division of parts, the sounds, their combination and succession being either logically related or arbitrarily chosen. ¶The strict division of parts, the structure, was a function of the duration aspect of sound, since,